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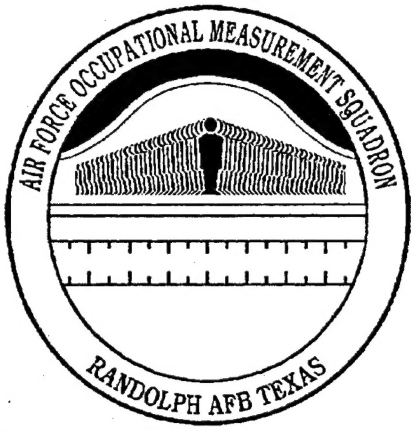

OCCUPATIONAL SURVEY REPORT

MISSILE AND SPACE FACILITIES
CAREER LADDER

AFSC 2M0X3

AFPT 90-2M0-052

FEBRUARY 1996

OCCUPATIONAL ANALYSIS PROGRAM
AIR FORCE OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION and TRAINING COMMAND
1550 5th STREET EAST
RANDOLPH AFB, TEXAS 78150-4449

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PREFACE

This report presents the results of an Air Force occupational survey of the Missile and Space Facilities (AFSC 2M0X3) career ladder. Authority for conducting occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

1Lt Callie J. Calhoun, Inventory Development Specialist, developed the survey instrument. Captain Shannen M. Batchelor, Occupational Analyst, analyzed the data and wrote the final report. 1Lt Sheon Mendoza provided computer programming support, and Mr. Richard G. Ramos provided administrative support.

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies are available upon request to the Air Force Occupational Measurement Squadron, Attention: Chief, Occupational Analysis Flight (OMY), 1550 5th Street East, Randolph AFB Texas 78150-4449 (DSN 487-6623).

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SUMMARY OF RESULTS

1. *Survey Coverage*: The Missile and Space Facilities (AFSC 2M0X3) career ladder incumbents were surveyed to obtain current task and equipment data for use in examining training programs. Survey results are based on responses from 370 members. Most are assigned to AFSPACECOM (97 percent) and all are stationed in the CONUS.

2. *Career Ladder Structure*: Structure analysis identified two job clusters and five independent jobs (IJ): Facility and Periodic Maintenance Team Cluster, PREL Technician IJ, Supply IJ, Job Control IJ, Supervisory Cluster, Quality Assurance (QA) IJ, and Training IJ.

3. *Career Ladder Progression*: Personnel in the AFSC 2M0X3 career ladder follow a typical career progression pattern. The inexperienced personnel perform technical tasks and the more experienced personnel are acting as technical advisors and supervisors.

4. *Training Analysis*: A match of survey data to the AFSC 2M0X3 Specialty Training Standard (STS) identified only a few items not supported, indicating that the survey data supported the STS very well. A similar match of data to the Plan of Instruction (POI) for the V3ABR2M033A course revealed only a few unsupported training objectives as well, again indicating that the survey data supported the POI very well. Career ladder functional managers and training personnel should carefully review these few nonsupported STS and POI entries to justify their continued inclusion in training documents.

5. *Job Satisfaction Analysis*: Overall, AFSC 2M0X3 members are as satisfied with their jobs as members of a comparative sample of logistics career ladder personnel. Furthermore, members of the current sample are as satisfied with their jobs as the previous AFSC 2M0X3 (formerly AFSC 411X2A) personnel surveyed in 1989. Job satisfaction data for members of specific career ladder jobs shows that most job members are satisfied with their work.

6. *Implications*: The current AFSC 2M0X3 career ladder job structure is similar to the job structure identified in the 1989 OSR. The AFM 36-2108 *Specialty Descriptions* accurately describe the jobs and tasks personnel at all skill-levels perform, and job satisfaction is generally positive for identified jobs. The training documents analysis identified very few unsupported STS items and POI learning objectives. Training personnel and career ladder functional managers should still review these documents to ensure they are complete and appropriate.

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OCCUPATIONAL SURVEY REPORT (OSR)
MISSILE AND SPACE FACILITIES CAREER LADDER
(AFSC 2M0X3)

INTRODUCTION

This is an AF Occupational Measurement Squadron OSR of the Missile and Space Facilities (AFSC 2M0X3) career ladder. This survey, completed in 1995, is intended to update the current data base, and to identify any changes that may have taken place since the last survey in 1989.

Background

The AFMAN 36-2108 *Specialty Description* for this career field states that members install, operate, maintain, and repair power generation and distribution systems, and environmental control and associated support systems and equipment for missile, spacecraft, and research and development facilities.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) AFPT 90-2M0-052, dated April 1994. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, and tasks from previous applicable OSRs. The preliminary task list was refined and validated through personal interviews with eight Subject-Matter Experts (SMEs) selected to cover one operational base plus one training unit at the following locations:

BASE	REASON FOR VISIT
Vandenberg AFB CA	Technical Training School
F. E. Warren AFB WY	90 Missile Wing-Maintains both Peacekeeper and Minuteman III ICBMs

Others contacted include Air Staff and MAJCOM functional managers, Air Force Personnel Center classification personnel, as well as the training manager, course supervisor, and Career Development Course Writer.

The resulting JI contains a comprehensive listing of 680 tasks grouped under 14 duty headings, with a background section requesting incumbents to indicate their grade, job title, time in present job, time in service, job satisfaction, and equipment they maintain in their present job.

Survey Administration

From March to August 1995, base training offices at operational bases throughout the CONUS administered the inventory to all eligible AFSC 2M0X3 personnel. Members eligible for the survey consisted of the total assigned 3-, 5-, and 7-skill level populations, excluding the following: (1) hospitalized personnel; (2) personnel in transition for a permanent change of station; (3) personnel retiring within the time the inventories were administered to the field; and (4) personnel in their jobs less than 6 weeks. Participants were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Human Resources Directorate, Armstrong Laboratory.

Each individual completing the inventory first filled in an identification and biographical information section and then checked each task he or she currently performed on the job. After checking tasks performed, each individual rated tasks checked on a 9-point scale showing relative time spent on that task, compared to other tasks performed. The ratings range from 1 (very small amount time spent) to 9 (very large amount time spent).

To determine relative time spent for each task, all incumbent's ratings are assumed to account for 100 percent of job time. The ratings are, therefore, summed and each individual task rating is divided by the total of all task ratings and subsequently multiplied by 100 to provide a relative percentage of time spent on each task.

Survey Sample

Personnel were selected to participate in this study to ensure an accurate representation across MAJCOMs and paygrades. Table 1 reflects the percentage, by MAJCOM, of assigned and sampled AFSC 2M0X3 individuals. The 370 respondents in the final sample represent 70

TABLE 1

MAJCOM REPRESENTATION IN SAMPLE

COMMAND	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
AFSPACECOM	95	97
AETC	3	2
OTHER	2	1

TOTAL ASSIGNED = 527
TOTAL SURVEYED = 510
TOTAL IN SAMPLE = 370
PERCENT OF ASSIGNED IN SAMPLE = 70%
PERCENT OF SURVEYED IN SAMPLE = 73%

percent of all assigned AFSC 2M0X3 personnel. The data are displayed showing assigned and sampled populations, based on the current MAJCOM structure. This table demonstrates that the sample closely approximates the MAJCOM representation of AFSC 2M0X3 members. Table 2 reflects the percentage distribution by paygrade groups. This table further emphasizes the sample accurately reflects the overall career ladder population.

Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. To obtain the needed task factor data, selected senior AFSC 2M0X3 personnel (generally E-6 or E-7 craftsmen) also completed a second booklet for either training emphasis (TE) or task difficulty (TD). The TE and TD booklets were processed separately from the JIs. The information gained from these task factor data is used in various analyses and is a valuable part of the training decision process.

Training Emphasis (TE). Individuals completing TE booklets were asked to rate tasks on a 10-point scale (from no training required to extremely high amounts of structured training required). Structured training is defined as training provided at resident technical schools, field training detachments, mobile training teams, formal on-the-job training (OJT), or any other organized training method. TE data were independently collected from 30 experienced 7-skill level personnel. The interrater reliability for these raters was good, indicating there was strong agreement among raters concerning which tasks required some form of structured training and which did not. In this specialty, tasks have an average TE rating of 3.55 and a standard deviation of 1.82. Tasks considered high in TE have ratings of 5.37 and above. TE rating data may also be used to rank order tasks indicating those tasks which senior NCOs in the field consider the most important for first-enlistment personnel to know how to perform.

Task Difficulty (TD). Each individual completing a TD booklet was asked to rate all of the tasks on a 9-point scale (from extremely low to extremely high) as to the relative difficulty of each task in the inventory. Difficulty is defined as the length of time required for the average incumbent to learn how to perform the task. TD data were independently collected from 28 experienced 7-skill level personnel. Interrater reliability was good, reflecting strong agreement among raters. Ratings were standardized so tasks have an average difficulty of 5.00, with a standard deviation of 1.00. The resulting data yielded a rank ordering of tasks indicating the degree of difficulty for each task in the inventory.

When used in conjunction with primary criterion of percent members performing, TD and TE ratings can provide insights into first-enlistment personnel training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction which support entry-level jobs.

TABLE 2

PAYGRADE DISTRIBUTION OF SAMPLE

PAYGRADE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
E-1 to E-3	13	11
E-4	45	46
E-5	19	22
E-6	11	9
E-7	12	12

SPECIALTY JOBS
(Career Ladder Structure)

The first step in the analysis process is to identify the structure of the career ladder in terms of the jobs the respondents perform. The Comprehensive Occupational Data Analysis Programs (CODAP) assist by creating an individual job description for each respondent based on tasks performed and relative amount of time spent on tasks. The CODAP automated job clustering program then compares all individual job descriptions, locates the two descriptions with the most similar tasks and time spent ratings, and combines them to form a composite job description. In successive stages, CODAP either adds new members to this initial group, or forms new groups based on similarity of tasks and time spent ratings.

The basic group used in the hierarchical clustering process is the Job. When two or more jobs have a substantial degree of similarity, in tasks performed and time spent performing tasks, they are grouped together and identified as a Cluster. The structure of the career ladder is then defined in terms of jobs and clusters of jobs.

Overview of Specialty Jobs

Based on analysis of tasks performed and amount of time spent performing each task, five independent jobs (IJs) and two clusters of jobs were identified. Figure 1 illustrates the jobs performed by AFSC 2M0X3 personnel.

A listing of these clusters and IJs is provided below. The stage (STG) number shown beside each title references computer printed information, while the letter "N" represents the number of personnel in each group.

I. Facility and Periodic Maintenance Team Cluster (STG045, N=177)

   A. Facility and Periodic Maintenance Team Trainer Job
   B. Facility and Periodic Maintenance Team Technician Job

II. PREL Technician Independent Job (STG098, N=34)

III. Supply Independent Job (STG076, N=5)

IV. Job Control Independent Job (STG069, N=6)

V. Supervisory Cluster (STG025, N=58)

   A. Maintenance Support Shop NCOIC Job
   B. Shop Chief/NCOIC Job

C. Maintenance Team Supervisor Job

VI. Quality Assurance (QA) Independent Job (STG059, N=17)

VII. Training Independent Job (STG073, N=5)

The respondents forming these groups account for 82 percent of the survey sample. The remaining 18 percent were performing tasks which did not group with any defined jobs. A sample of job titles for these individuals include: Dormitory Manager, Clothing Pool Manager, Equipment Recovery Team member, and Aerospace Ground Equipment Flight Trainer.

MISSILE AND SPACE FACILITIES JOBS
AFSC 2M0X3

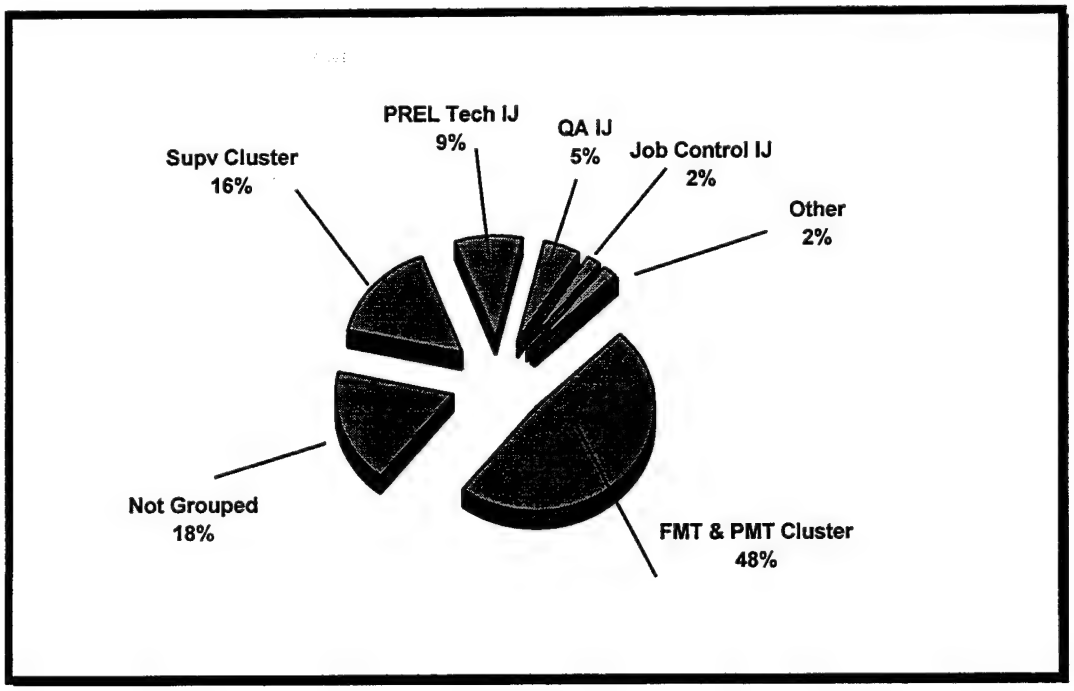

FIGURE 1

* Other includes: Supply IJ and Training IJ.

Group Descriptions

The following paragraphs contain brief descriptions of the two clusters and five IJs identified in the career ladder structure analysis. Appendix A lists representative tasks performed by identified IJs and the job clusters. Table 3 displays time spent on duties, while Table 4 provides demographic information on members in each cluster and job discussed in this report.

I. FACILITY AND PERIODIC MAINTENANCE TEAM CLUSTER (STG045). The 177 members of this cluster represent 48 percent of the total survey sample. The work members of this large group perform is core to the career ladder as it primarily involves maintaining launch facility (LF) and missile alert facility (MAF) power distribution systems as well as environmental control systems (ECSs) (see Table 3). The work performed by these incumbents is highly technical in nature. The members of this cluster represent a broad range of experience. Representative tasks for members of this cluster of jobs include:

FACILITY AND PERIODIC MAINTENANCE TEAM CLUSTER	
Number of members	177
Percent of total sample	48%
Average number of tasks performed	209
Average time in present job	1.8 yrs
Average time in career field	4.8 yrs
Average TAFMS	5.4 yrs
Predominant DAFSC	2M053
Predominant paygrades	E-4
Predominant MAJCOM	SPCOM

raise or lower equipment by hand
perform prestart checks of diesel engine units (DEUs)
perform manual mode operations of DEUs
perform test mode operations of DEUs
perform LF entry and exit procedures
remove or install power generation and distribution system hardware, such as gaskets or bolts
perform site general housekeeping functions
perform minor repairs, such as splicing wires, soldering, or tightening parts

The majority of personnel in this cluster, as seen in Table 4, hold the 5-skill level and average time in service, as measured by Total Active Federal Military Service (TAFMS) date, for this group is just over 5 years. Incumbents have an average of 4.8 years in the career field and perform an average of 209 tasks on the job.

Survey data show there were two distinct jobs in the cluster which differ slightly by time spent on specific tasks and experience in the career field. One job was performed by about 166 members and consists of primarily technical work. These members work on both facility and periodic maintenance teams. The other job in this cluster is performed by 8 members and the

TABLE 3

AVERAGE PERCENT TIME SPENT ON DUTIES BY CAREER LADDER JOBS

DUTIES		FMT & PMT CLUSTER (STG045)	PREL TECHNICIAN IJ (STG098)	SUPPLY IJ (STG076)	JOB CONTROL IJ (STG069)
A	ORGANIZING AND PLANNING	1	1	*	26
B	DIRECTING AND IMPLEMENTING	1	1	5	22
C	INSPECTING AND EVALUATING	2	2	3	1
D	TRAINING	2	2	-	-
E	PERFORMING ADMINISTRATIVE FUNCTIONS	3	5	92	50
F	PERFORMING MISSILE FACILITY MAINTENANCE	11	18	-	-
G	MAINTAINING GUIDANCE AND CONTROL (G AND C) LIQUID COOLING SYSTEMS	*	12	-	-
H	MAINTAINING GUIDANCE AND CONTROL CONDITIONING UNIT (GCCU) SYSTEMS	2	3	-	-
I	MAINTAINING GCCU TEST EQUIPMENT	*	1	-	-
J	MAINTAINING LAUNCH FACILITY (LF) AND MISSILE ALERT FACILITY (MAF) POWER GENERATION AND DISTRIBUTION SYSTEMS	37	*	-	-
K	MAINTAINING MISCELLANEOUS LF AND MAF POWER DISTRIBUTION SYSTEMS	3	*	-	-
L	MAINTAINING LF AND MAF ENVIRONMENTAL CONTROL SYSTEMS (ECS)	33	3	-	-
M	PERFORMING GENERAL MAINTENANCE FUNCTIONS	4	4	-	-
N	MAINTAINING SUPPORT VEHICLES	1	48	-	-

* Denotes less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

TABLE 3 (CONTINUED)

AVERAGE PERCENT TIME SPENT ON DUTIES BY CAREER LADDER JOBS

DUTIES		SUPERVISORY CLUSTER (STG025)	QA IJ (STG059)	TRAINING IJ (STG073)
A	ORGANIZING AND PLANNING	22	7	6
B	DIRECTING AND IMPLEMENTING	20	10	5
C	INSPECTING AND EVALUATING	21	57	8
D	TRAINING	8	7	78
E	PERFORMING ADMINISTRATIVE FUNCTIONS	25	17	3
F	PERFORMING MISSILE FACILITY MAINTENANCE	1	1	-
G	PERFORMING GUIDANCE AND CONTROL (G AND C) LIQUID COOLING SYSTEMS	-	-	-
H	MAINTAINING GUIDANCE AND CONTROL CONDITIONING UNIT (GCCU) SYSTEMS	*	-	-
I	MAINTAINING GCCU TEST EQUIPMENT	*	-	-
J	MAINTAINING LAUNCH FACILITY (LF) AND MISSILE ALERT FACILITY (MAF) POWER GENERATION AND DISTRIBUTION SYSTEMS	1	1	-
K	MAINTAINING MISCELLANEOUS LF AND MAF POWER DISTRIBUTION SYSTEMS	*	*	-
L	MAINTAINING LF AND MAF ENVIRONMENTAL CONTROL SYSTEMS (ECS)	1	-	-
M	PERFORMING GENERAL MAINTENANCE FUNCTIONS	2	*	-
N	MAINTAINING SUPPORT VEHICLES	*	*	-

* Denotes less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

TABLE 4

SELECTED BACKGROUND DATA FOR AFSC 2M0X3 CAREER LADDER JOBS

	FMT & PMT CLUSTER	PREL TECHNICIAN IJ	SUPPLY IJ	JOB CONTROL IJ	SUPERVISORY CLUSTER	QUALITY ASSURANCE IJ	TRAINING IJ
NUMBER IN GROUP	177	34	5	6	58	17	5
PERCENT OF SAMPLE	48%	9%	1%	2%	16%	5%	1%
DAFSC DISTRIBUTION:							
2M033A	40%	26%	60%	0%	3%	0%	0%
2M053	54%	68%	40%	83%	28%	59%	80%
2M073	6%	6%	0%	17%	69%	41%	20%
PAYGRADE DISTRIBUTION:							
E-1 to E-3	16%	0%	60%	0%	2%	0%	0%
E-4	63%	68%	40%	83%	5%	6%	40%
E-5	15%	26%	0%	17%	22%	59%	40%
E-6	3%	6%	0%	0%	22%	18%	20%
E-7	2%	0%	0%	0%	48%	18%	0%
E-8	0%	0%	0%	0%	0%	0%	0%
E-9	0%	0%	0%	0%	0%	0%	0%
AVERAGE NUMBER OF TASKS PERFORMED	209	172	6	7	54	39	34
AVERAGE MONTHS TAFMS	65	82	44	89	174	137	117
PERCENT IN FIRST ENLISTMENT	58%	15%	60%	0%	7%	0%	0%
PERCENT SUPERVISING	22%	32%	0%	17%	84%	29%	60%

work performed covers a wide range of areas, such as administrative, technical and training. These members are much more experienced than their counterparts in the cluster, as they average 14 years TAFMS.

II. PREL TECHNICIAN INDEPENDENT JOB (STG098). The 34 members of this job account for 9 percent of the survey sample. These incumbents perform work in groups called power, refrigeration, and electric (PREL) teams. This work is highly technical in nature. Approximately 48 percent of time is spent maintaining support vehicles. This is also the only job which spends any time maintaining guidance and control (G and C) liquid cooling systems (see Table 3). Representative tasks for members of this job include:

PREL TECHNICIAN IJ	
Number of members	34
Percent of total sample	9%
Average number of tasks performed	172
Average time in present job	2.8 yrs
Average time in career field	6.3 yrs
Average TAFMS	6.8 yrs
Predominant DAFSC	2M053
Predominant paygrades	E-4
Predominant MAJCOM	SPCOM

troubleshoot payload transporter (PT) auxiliary power unit (APU)
troubleshoot PT hoists
perform operational checkouts of PT security systems
perform operational checkouts of PT hoists
perform operational checkouts of PT electrical systems
troubleshoot PT ECS
troubleshoot PT electrical systems
perform periodic inspections of PT APU
perform operational checkouts of PT APU
perform periodic inspections of PT electrical systems

PREL Technician IJ members average nearly 7 years TAFMS and predominately hold the 5-skill level (see Table 4). They are also primarily assigned to AFSPACECOM as are all members of this career ladder.

III. SUPPLY INDEPENDENT JOB (STG076). The 5 members of this job comprise 1 percent of the survey sample. These job incumbents are working primarily with equipment, tools, or supplies. About 92 percent of the work is administrative in nature (see Table 3). Representative tasks for members of this job include:

SUPPLY IJ	
Number of members	5
Percent of total sample	1%
Average number of tasks performed	6
Average time in present job	1 yr
Average time in career field	3.9 yrs
Average TAFMS	3.7 yrs
Predominant DAFSC	2M033A
Predominant paygrades	E-3
Predominant MAJCOM	SPCOM

inspect equipment, tools, or supplies, other than CTKs
inventory equipment, tools, or supplies, other than CTKs
issue or log turn-ins of equipment, tools, or supplies, other than CTKs
store equipment, tools, or supplies
update equipment status reports, such as files, logs, or boards
maintain bench stock supply levels
inventory CTKs
inspect consolidated tool kits (CTKs)
dispatch maintenance teams
perform operator maintenance on vehicles

Incumbents generally have limited experience in the career ladder as they average about 3.7 years TAFMS (see Table 4). The majority of these members hold the 3-skill level.

IV. JOB CONTROL INDEPENDENT JOB (STG069). The 6 members of this job comprise 2 percent of the survey sample. Four of these incumbents report their work area/functional area of assignment as "Job Control." Members perform a variety of administrative as well as organizing and planning tasks (see Table 3). Furthermore, they use the Expanded Minuteman Data Analysis System (EMDAS) to control maintenance of equipment. Representative tasks for members of this job include:

JOB CONTROL IJ	
Number of members	6
Percent of total sample	2%
Average number of tasks performed	7
Average time in present job	1 yr
Average time in career field	7.4 yrs
Average TAFMS	7.4 yrs
Predominant DAFSC	2M053
Predominant paygrades	E-4
Predominant MAJCOM	SPCOM

update maintenance data into Expanded Minuteman Data Analysis System (EMDAS)
dispatch maintenance teams
schedule maintenance or maintenance inspections

extract maintenance data from EMDAS
direct utilization or maintenance of equipment, supplies, or workspace
coordinate maintenance of equipment with appropriate agencies
determine or establish work priorities
compile information for records or reports
determine or establish logistic requirements, such as personnel, equipment, space, tools, or supplies
plan or prepare briefings

The Job Control IJ members are moderately experienced in the career field, as they average 7.4 years TAFMS and predominantly hold 5-skill level positions (see Table 4).

V. SUPERVISORY CLUSTER (STG025). The 58 members of this job cluster comprise 16 percent of the survey sample. These incumbents are supervisors of other career ladder members and spend the majority of their time performing tasks in the administrative and supervisory duties. They are differentiated from the other jobs in that they do not perform technical tasks (see Table 3). Representative tasks for this cluster include:

SUPERVISORY CLUSTER	
Number of members	58
Percent of total sample	16%
Average number of tasks performed	54
Average time in present job	1.2 yrs
Average time in career field	12.6 yrs
Average TAFMS	14.5 yrs
Predominant DAFSC	2M073
Predominant paygrades	E-7
Predominant MAJCOM	SPCOM

determine or establish work priorities
write EPRs
counsel personnel on personal or military-related matters
supervise Missile Facilities Journeymen, Intercontinental Ballistic Missile (ICBM) (AFSC 2M053)
plan work assignments
dispatch maintenance teams
interpret policies, directives, or procedures for subordinates
review policy changes
inspect work areas
determine or establish logistic requirements, such as personnel, equipment, space, tools, or supplies
schedule personnel for temporary duty (TDY) assignments, leaves, or passes

The Supervisory Cluster members are the most experienced in the career field, as they average nearly 15 years TAFMS and predominantly hold 7-skill level positions (see Table 4). There are three different jobs within the cluster. One of the jobs in this cluster consists of the

maintenance support shop NCOICs which perform administrative tasks such as storing equipment, tools, or supplies and coordinating equipment maintenance. Another job in this cluster consists of the most experienced incumbents and are the uppermost supervisors, primarily shop chiefs or NCOICs. The members of the final job are the supervisors of both the facility and periodic maintenance teams.

VI. QUALITY ASSURANCE (QA) INDEPENDENT JOB (STG059). The 17 members of this job comprise 5 percent of the survey sample. These incumbents are the quality assurance evaluators and spend the most time in the inspecting and evaluating duty. The work performed by members of this independent job focuses primarily on performing inspections. They also perform administrative and some supervisory tasks (see Table 3). Representative tasks for this job include:

QUALITY ASSURANCE IJ	
Number of members	17
Percent of total sample	5%
Average number of tasks performed	39
Average time in present job	1 yr
Average time in career field	10.5 yrs
Average TAFMS	11.4 yrs
Predominant DAFSC	2M053
Predominant paygrades	E-5
Predominant MAJCOM	SPCOM

write QA reports
review inspection reports
inspect safety equipment
evaluate technical order (TO) changes
evaluate personnel for compliance with performance standards
evaluate maintenance or use of equipment, tools, supplies, or workspace
inspect work areas
initiate TO changes
implement quality assurance (QA) programs
perform completed maintenance inspections
evaluate master change logs (MCLs)

The QA IJ members average about 11 years TAFMS, with the dominant paygrade being E-5, and predominantly holding 5-skill level positions (see Table 4).

VII. TRAINING INDEPENDENT JOB (STG073). The 5 members of this job comprise only 1 percent of the survey sample. These incumbents work primarily in training other personnel. They spend the majority of their time performing tasks in the training duty, but also perform some supervisory tasks (see Table 3). This job has a very narrow focus, as they perform an average of only 35 tasks. Representative tasks for this job include:

TRAINING IJ	
Number of members	5
Percent of total sample	1%
Average number of tasks performed	35
Average time in present job	1.6 yrs
Average time in career field	7.7 yrs
Average TAFMS	9.8 yrs
Predominant DAFSC	2M053
Predominant paygrades	E-5
Predominant MAJCOM	SPCOM

maintain training records, charts, graphs, or files
evaluate progress of trainees
counsel trainees on training progress
prepare training schedules
construct or develop training materials or aids
direct or implement training programs
draft or write lesson plans
procure training aids, space, or equipment
write or revise training materials
insert faults into trainers

The Training IJ members are fairly well experienced, as they average about 10 years TAFMS and predominantly hold 5-skill-level positions (see Table 4).

Comparison to Previous Study

The AFSC 2M0X3 career ladder structure has changed very little since the previous study (see Table 5). For the most part, the jobs themselves have remained very similar, but whether they appear as IJs or as part of a cluster has changed somewhat. For example, in the current survey, the PREL IJ appeared in the Shop Maintenance Technician Cluster of the previous survey. There was no such cluster found in the current survey. The Supply IJ of the current study was not identified in the previous study. The current Job Control IJ was identified as part of the Maintenance Control Personnel Cluster of the previous study, which did not appear as a cluster this time. The Quality Assurance IJ and the Training IJ of the current study were not included as part of the Supervisory Cluster as they were in the previous study. Also, the TO Library Personnel Job of the previous study was not identified in the current study.

TABLE 5

SPECIALTY JOB COMPARISONS BETWEEN CURRENT AND 1989 SURVEYS

CURRENT SURVEY (N=370)	PERCENT OF SAMPLE	1989 (AFSC 411X2A) SURVEY (N=640)	PERCENT OF SAMPLE
FACILITY AND PERIODIC MAINTENANCE TEAM CLUSTER	48	MISSILE FACILITY MAINTENANCE TEAM MEMBER CLUSTER	57
PREL TECHNICIAN IJ	9	SHOP MAINTENANCE TECHNICIAN CLUSTER	8
SUPPLY IJ	1	NOT IDENTIFIED	-
JOB CONTROL IJ	2	MAINTENANCE CONTROL PERSONNEL CLUSTER	7
SUPERVISORY CLUSTER	16	MAINTENANCE SUPERVISORS AND QA PERSONNEL CLUSTER	22
QA IJ	5		
TRAINING IJ	1		
NOT IDENTIFIED	-	TO LIBRARY PERSONNEL IJ	1

ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups, in conjunction with analysis of the career ladder structure, is an important part of each occupational survey. DAFSC analysis examines differences in tasks performed between skill level members. This information may then be used to evaluate how well career ladder documents, such as AFMAN 36-2108 *Specialty Descriptions,* reflect what career ladder personnel are doing in the field.

The distribution of AFSC 2M0X3 skill-level groups across career ladder jobs is displayed in Table 6. Notice that far more 3-skill level personnel grouped within the Facility and Periodic Maintenance Team Cluster, which contains primarily technical work. A considerable percentage of the 5-skill level members are also grouped in that cluster as well. As members progress to 7-skill level positions, they tend to hold supervisory jobs such as those found in the Supervisory Cluster. Table 7 offers another perspective by displaying relative percent time spent on each duty across skill-level groups. Once again typical career ladder progression is evident as members spend increasingly more duty time performing supervisory functions as they progress in skill-level.

Skill-Level Descriptions

DAFSC 2M033A. The 91 3-skill level personnel, representing 25 percent of the survey sample, perform an average of 174 tasks, the most of any DAFSC group, and primarily perform the jobs within the Facility and Periodic Maintenance Team Cluster (see Table 6). They spend 32 percent of their time maintaining LF and MAF power generation and distribution systems and 25 percent of their time maintaining LF and MAF environmental control systems (See Table 7). Additionally, more 3-skill level personnel perform these activities than members of any other skill-level group. Table 8, which shows tasks they perform, demonstrates the basic technical nature of their work. This skill level group contains the specialty shredout, suffix A, which indicates that these personnel can only be assigned to ICBM locations.

DAFSC 2M053. The 198 5-skill level personnel, representing 54 percent of the survey sample, perform an average of 133 tasks. They perform work primarily in the Facility and Periodic Maintenance Team Cluster and spend 20 percent of time working in the Supervisory Cluster (see Table 6). Table 7 shows they spend their time performing tasks in support of a variety of functions, including technical, administrative and some supervisory areas. Table 9 shows that they perform primarily administrative tasks dealing with equipment, tools, or supplies. The factor distinguishing them from 3-skill level members is they perform some basic supervisory functions (see Table 10).

TABLE 6

DISTRIBUTION OF SKILL-LEVEL MEMBERS
ACROSS CAREER LADDER JOBS

JOB	DAFSC 2M033A (N=91)	DAFSC 2M053 (N=198)	DAFSC 2M073 (N=81)
FACILITY AND PERIODIC MAINTENANCE TEAM CLUSTER	78	48	14
PREL TECHNICIAN IJ	10	12	8
SUPPLY IJ	3	1	0
JOB CONTROL IJ	0	3	1
SUPERVISORY CLUSTER	2	20	49
QA IJ	0	3	9
TRAINING IJ	0	2	1
NOT GROUPED	7	11	18

* Denotes less than 1 percent

TABLE 7

TIME SPENT ON DUTIES BY MEMBERS OF SKILL-LEVEL GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTY AREA		DAFSC 2M033A (N=91)	DAFSC 2M053 (N=198)	DAFSC 2M073 (N=81)
A	ORGANIZING AND PLANNING	1	6	20
B	DIRECTING AND IMPLEMENTING	1	5	16
C	INSPECTING AND EVALUATING	3	8	22
D	TRAINING	*	6	9
E	PERFORMING ADMINISTRATIVE FUNCTIONS	8	15	20
F	PERFORMING MISSILE FACILITY	11	8	2
G	MAINTAINING GUIDANCE AND CONTROL (G AND C) LIQUID COOLING SYSTEMS	1	1	*
H	MAINTAINING GUIDANCE AND CONTROL CONDITIONING UNIT (GCCU) SYSTEMS	2	2	*
I	MAINTAINING GCCU TEST EQUIPMENT	*	*	*
J	MAINTAINING LAUNCH FACILITY (LF) AND MISSILE ALERT FACILITY (MAF) POWER GENERATION AND DISTRIBUTION SYSTEMS	32	19	4
K	MAINTAINING MISCELLANEOUS LF AND MAF POWER DISTRIBUTION SYSTEMS	2	2	1
L	MAINTAINING LF AND MAF ENVIRONMENTAL CONTROL SYSTEMS (ECS)	25	18	3
M	PERFORMING GENERAL MAINTENANCE FUNCTIONS	5	3	1
N	MAINTAINING SUPPORT VEHICLES	8	6	1

* Denotes less than 1 percent

NOTE: Columns may not add up to 100 percent due to rounding

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY DAFSC 2M033A PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=91)
M567	Perform minor repairs, such as splicing wires, soldering, or tightening parts	79
M571	Raise or lower equipment by hand	77
J401	Perform prestart checks of DEUs	77
J431	Service DEU lube oil systems	77
J426	Remove or install power generation and distribution system minor hardware, such as gaskets or bolts	74
J371	Perform manual mode operations of DEUs	73
J402	Perform test mode operations of DEUs	73
J451	Verify main fuel tank levels	70
M562	Maintain handtools or tool boxes	69
M566	Perform LF entry and exit procedures	67
M569	Perform site general housekeeping functions	60
E149	Inspect equipment, tools, or supplies, other than CTKs	53
E170	Turn-in equipment, tools, or supplies	53
C74	Inspect safety equipment	47
E151	Inventory equipment, tools, or supplies, other than CTKs	42
E169	Store equipment, tools, or supplies	41
E150	Inventory CTKs	41
E148	Inspect consolidated tool kits (CTKs)	35
E162	Perform operator maintenance on vehicles	23
E153	Issue or turn-ins of equipment, tools, or supplies, other than CTKs	18
E171	Update equipment status reports, such as files, logs, or boards	12

TABLE 9

REPRESENTATIVE TASKS PERFORMED BY DAFSC 2M053 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=198)
E149	Inspect equipment, tools, or supplies	47
C74	Inspect safety equipment	41
E170	Turn-in equipment, tools, or supplies	39
E151	Inventory equipment, tools, or supplies, other than CTKs	37
E169	Store equipment, tools, or supplies	32
C75	Inspect work areas	32
A5	Determine or establish work priorities	30
B26	Counsel personnel on personal or military-related matters	27
E141	Evaluate serviceability of equipment, tools, or supplies	25
C88	Write EPRs	25
A18	Review policy changes	25
E132	Coordinate maintenance of equipment with appropriate agencies	22
A19	Schedule maintenance or maintenance inspections	21
A17	Plan work assignments	21
E172	Update maintenance data into Expanded Minuteman Data Analysis System (EMDAS)	20
A14	Plan or prepare briefings	19
B30	Dispatch maintenance teams	16
E143	Extract maintenance data from EMDAS	15
E130	Compile information for records or reports	15
E134	Coordinate supply matters with appropriate agencies	15

TABLE 10

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2M033A AND DAFSC 2M053 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 2M033A (N=91)	DAFSC 2M053 (N=198)	DIFFERENCE
J436	Troubleshoot DEU cranking and alarm panels	73	39	33
J442	Troubleshoot DEU lube oil systems	75	42	32
J424	Remove or install MPPs	74	42	31
J411	Remove or install DEU fuel oil system components	77	46	31
J452	Verify MPP failure using power system verification boxes (PSVBs)	75	44	31
J382	Perform operational checkouts of remote start units (RSUs)	68	37	31
J372	Perform MPPs site interface checkouts	73	42	30
J362	Adjust DEU fuel oil components	75	45	30
J417	Remove or install DEU lube oil system components	74	44	30
J431	Service DEU lube oil systems	77	47	29
B26	Counsel personnel on personal or military-related matters	4	27	-23
C88	Write EPRs	2	25	-23
D116	Maintain training records, charts, graphs, or files	2	22	-20
D95	Conduct OJT	3	22	-19
A5	Determine or establish work priorities	11	30	-19
B40	Interpret policies, directives, or procedures for subordinates	5	23	-18
D100	Construct or develop training materials or aids	1	19	-18
D108	Draft or write lesson plans	1	19	-18
A14	Plan or prepare briefings	2	19	-17

DAFSC 2M073. The 81 7-skill level personnel, representing 22 percent of the survey sample, perform an average of 78 tasks, less than the lower skill-level groups because they are first-line supervisors and do not perform the technical tasks. Table 6 shows they perform the jobs in the Supervisory Cluster, which require supervisory and administrative functions. Table 7 describes the nature of their work as they spend 58 percent of their time performing tasks in duties A-C, which are supervisory in nature. Additionally, Table 11 shows tasks they most often perform are supervisory in nature, but that a few administrative tasks are performed as well. They distinguish themselves from their junior counterparts as more of them perform supervisory duties such as counseling personnel on personal or military-related matters (see Table 12).

Summary

Three-skill level airmen spend the majority of their relative job time on technical functions, while the 5-skill level airmen are performing both technical and administrative functions. Neither group performs many supervisory duties. Seven-skill level personnel are supervisors that perform some administrative, as well as supervisory functions.

ANALYSIS OF AFMAN 36-2108 *SPECIALTY DESCRIPTIONS*

Survey data were compared to AFMAN 36-2108 *Specialty Descriptions* for AFSC 2M0X3, Missile and Space Facilities Apprentice, Journeymen, and Craftsmen, dated 31 October 1994. The descriptions for the 3-, 5-, and 7-skill level members were accurate, depicting technical aspects of the job, as well as the increase in supervisory responsibilities previously described in the DAFSC analysis. The descriptions also capture the primary responsibilities of job members identified in the job structure analysis.

TRAINING ANALYSIS

Occupational surveys provide information which can be used to assist in the development of training programs relevant to needs of personnel in their first-enlistment. Factors used to evaluate entry-level AFSC 2M0X3 training include duties performed by members across career ladder jobs, percentages of members performing specific tasks, ratings of how much TE tasks should receive in formal training, and relative TD ratings.

TABLE 11

REPRESENTATIVE TASKS PERFORMED BY DAFSC 2M073 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=81)
B26	Counsel personnel on personal or military-related matters	76
C88	Write EPRs	70
A5	Determine or establish work priorities	69
B40	Interpret policies, directives, or procedures for subordinates	67
A3	Determine or establish logistic requirements, such as personnel, equipment, space, tools, or supplies	67
A17	Plan work assignments	63
A14	Plan or prepare briefings	62
A18	Review policy changes	62
A10	Establish performance standards for subordinates	60
C75	Inspect work areas	58
A7	Develop work procedures	57
A11	Establish work methods, production controls, or inspection procedures	57
A20	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	56
B45	Supervise Missile Facilities Journeymen, ICBM (AFSC 2M053)	54
B23	Compile information for reports or staff studies	53
E130	Compile information for records or reports	48
C58	Evaluate personnel for compliance with performance standards	48
A19	Schedule maintenance or maintenance inspections	47
B25	Conduct staff meetings or briefings, other than training	40
B30	Dispatch maintenance teams	31

TABLE 12

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2M053 AND DAFSC 2M073 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 2M053 (N=198)	DAFSC 2M073 (N=81)	DIFFERENCE
L470	Adjust ECS dampers	49	11	38
L473	Adjust ECS pneumatic electrical switches	51	14	37
L484	Leak check refrigerants subsystems	49	12	37
L475	Adjust ECS thermostats	50	14	36
L471	Adjust ECS electrical switches	50	14	36
L480	Adjust refrigerant subsystem components	50	14	36
J431	Service DEU lube oil systems	47	11	36
L468	Adjust brine chiller components	51	15	36
L469	Adjust ECS damper operators	48	12	36
L489	Perform conditioned air flow balancings	46	10	36
A3	Determine or establish logistic requirements, such as personnel, equipment, space, tools, or supplies	12	67	-55
B26	Counsel personnel on personal or military-related matters	27	77	-50
A20	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	10	56	-46
C88	Write EPRs	25	70	-45
B23	Compile information for reports or staff studies	9	53	-44
B40	Interpret policies, directives, or procedures for subordinates	23	67	-44
A11	Establish work methods, production controls, or inspection procedures	14	57	-43
A14	Plan or prepare briefings	19	62	-43
A17	Plan work assignments	21	63	-42
A10	Establish performance standards for subordinates	19	60	-41

First-Enlistment Personnel

In this study there are 128 members in their first-enlistment (1-48 months TAFMS) representing 35 percent of the survey sample. These personnel work primarily in Facility and Periodic Maintenance Team Cluster jobs (see Figure 2). They spend much of their time maintaining LF and MAF power generation and distribution systems (see Table 13). Some members also perform other technical functions, however, very few members with this level of experience work in supervisory areas. Notice in Table 14, that first-enlistment personnel perform primarily technical tasks, such as performing prestart checks or operational check outs of equipment. At this level, members perform virtually no supervisory duties.

Table 15 presents a list of equipment used by more than 20 percent of first-enlistment AFSC 2M0X3 personnel. Members use a wide variety of equipment on their jobs.

AFSC 2M0X3 FIRST-ENLISTMENT PERSONNEL CAREER LADDER JOBS

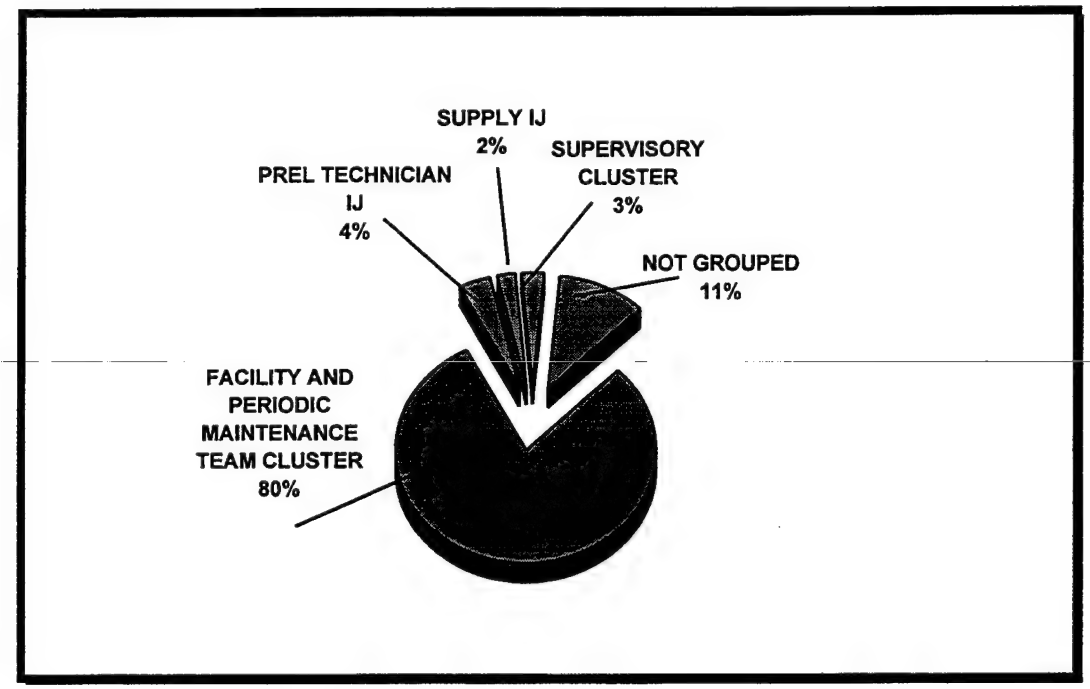

FIGURE 2

TABLE 13

RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY FIRST-ENLISTMENT AFSC 2M0X3 PERSONNEL

DUTY AREA		PERCENT TIME SPENT
A	ORGANIZING AND PLANNING	2
B	DIRECTING AND IMPLEMENTING	1
C	INSPECTING AND EVALUATING	2
D	TRAINING	*
E	PERFORMING ADMINISTRATIVE FUNCTIONS	8
F	PERFORMING MISSILE FACILITY MAINTENANCE	11
G	MAINTAINING G AND C LIQUID COOLING SYSTEMS	1
H	MAINTAINING GCCU SYSTEMS	1
I	MAINTAINING GCCU TEST EQUIPMENT	*
J	MAINTAINING LF AND MAF POWER GENERATION AND DISTRIBUTION SYSTEMS	34
K	MAINTAINING MISCELLANEOUS LF AND MAF POWER DISTRIBUTION SYSTEMS	2
L	MAINTAINING LF AND MAF ECS	28
M	PERFORMING GENERAL MAINTENANCE FUNCTIONS	5
N	MAINTAINING SUPPORT VEHICLES	4

* Denotes less than 1 percent

TABLE 14

REPRESENTATIVE TASKS PERFORMED BY
FIRST-ENLISTMENT AFSC 2M0X3 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=128)
J401	Perform prestart checks of DEUs	80
J431	Service DEU lube oil systems	80
M571	Raise or lower equipment by hand	79
J366	Adjust DEU safety and alarm device components	79
J374	Perform operational check outs of DEU battery charges	79
J411	Remove or install DEU fuel oil system components	79
J429	Service DEU cooling systems	78
J371	Perform manual mode operations of DEUs	77
M567	Perform minor repairs, such as splicing wires, soldering, or tightening parts	76
J402	Perform test mode operations of DEUs	76
J426	Remove or install power generation and distribution system minor hardware, such as gaskets or bolts	76
J451	Verify main fuel tank levels	71
M566	Perform LF entry and exit procedures	67
M562	Maintain handtools or tool boxes	63
M569	Perform site general housekeeping functions	61
E170	Turn-in equipment, tools, or supplies	51
E149	Inspect equipment, tools, or supplies, other than CTKs	48
E151	Inventory equipment, tools, or supplies, other than CTKs	40
C74	Inspect safety equipment	40
E169	Store equipment, tools, or supplies	35
E150	Inventory CTKs	34

TABLE 15

EQUIPMENT ITEMS USED BY MORE THAN 20 PERCENT OF FIRST-ENLISTMENT AFSC 2M0X3 PERSONNEL

EQUIPMENT	1ST ENL (N=128)
Multimeters	91
Torque Wrenches	90
Electric Drills	89
Manifold Gauge Kits	88
Ammeters	87
Belt Alignment Tools	86
Calibrated Thermometers	86
Electronic Leak Detectors	85
Manometers	84
Gauges, Differential Pressure	83
Portable Sump Pump Kits	82
Power System Verification Boxes (PSVB)	82
Test Sets, Temperature Control	80
Johnson Control Kits	79
Meters, Frequency	79
Hydrometers	78
Battery Chargers	77
Elevator Work Cages	77
Emergency Work Apparatus	77
Gauges, Pressure, Other than Differential Pressure	77
Soldering Irons	77
Vibrogrounds	76
Gauges, Tension	74
Refrigerant Reclaimers/Recyclers	74
Air Compressors	73
Fuel Transfer Pumps	73
Refrigerant Oil Pumps	72
Gauges, Micron	70
Graduated Cylinders	70
Fault Locating Indicators	67
Refrigerant Scales	67
Meters, Phase Rotation	66
Pneumatic Tools, such as drills and wrenches	65
Vacuum Pumps	62
Gas Detectors	59
Hoists, Vehicle	52
Hoists, Overhead	48
Hoists, Portable	48
Nitrogen Cylinders	48
Portable Heaters	48

TABLE 15 (CONTINUED)

EQUIPMENT ITEMS USED BY MORE THAN 20 PERCENT OF FIRST-ENLISTMENT AFSC 2M0X3 PERSONNEL

EQUIPMENT	1ST ENL (N=128)
Direct Current (DC) Power Supplies	44
Megohometers	42
Micrometers	42
Meters, Flow	38
Bench Grinders	34
Test Sets, Pneumatic Control	33
Brine Balance Kits	30
Guidance & Control (G & C) Liquid Cooling Assemblies	23
Regulated Power Supplies	23
Meters, Oxygen Deficiency	22
Pipe Thawers	22

Training Emphasis (TE) and Task Difficulty (TD) Data

TE and TD data are secondary task factors that can help training development personnel decide which tasks to emphasize for entry-level training. These ratings, based on the judgments of senior career ladder NCOs at operational units, provide a rank-ordering of those tasks considered important for airmen with 1-48 months TAFMS members to learn (TE) and a measure of the relative difficulty of those tasks (TD). When combined with data on percentages of entry-level personnel performing tasks, comparisons can be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors (TE and TD), accompanied by moderate to high percentages performing, may be more appropriately planned for OJT programs. Low task factor ratings may highlight tasks best omitted from training for new personnel. These decisions must be weighed against percentages of personnel performing tasks, command concerns, and criticality of tasks.

To assist training development personnel, AFOMS developed a computer program that uses these task factors and percentages of 1-48 months TAFMS personnel performing tasks to produce Automated Training Indicators (ATIs). ATIs correspond to training decisions listed and defined in the Training Decision Logic Table found in Attachment 1, AETCR 52-22. ATIs allow training developers to quickly focus attention on those tasks which are most likely to qualify for resident course consideration.

Tasks having the highest TE ratings for AFSC 2M0X3 personnel with 1-48 months TAFMS are listed in Table 16. Included for each task are percentages of 1-24 months TAFMS personnel performing the task (1st Job), percentages of 1-48 months TAFMS personnel performing the task (1st Enl), and TD ratings. As illustrated in the table, tasks with the highest TE ratings deal with refrigerant subsystem functions, most often performed by members in core jobs of the career field. Other tasks with high TE involve emergency actions.

Table 17 lists tasks having the highest TD ratings. The percentages of 1-24 months TAFMS, 1-48 months TAFMS, 5- and 7-skill level personnel performing, and TE ratings are also included for each task. Several tasks with high TD deal with training performed by low percentages of respondents. The technical functions considered to be extremely difficult relate to "troubleshooting." Generally, there is no correlation between the TD and TE ratings of tasks shown.

Various lists of tasks, accompanied by TE and TD ratings, are contained in the **TRAINING EXTRACT** package and should by reviewed in detail by technical school personnel. For a more detailed explanation of TE and TD ratings, see Task Factor Administration in the **SURVEY METHODOLOGY** section of this report.

TABLE 16

TASKS WITH HIGHEST TRAINING EMPHASIS RATINGS

TASKS		TNG EMP	PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	TSK DIFF
L484	Leak Check refrigerant subsystems	6.80	45	75	6.14
J372	Perform MPPs site interface checkouts	6.80	55	73	5.57
L541	Troubleshoot air-conditioning subsystems, other than emergency systems	6.70	40	70	6.21
L519	Perform refrigerant reclaiming or recycling	6.63	30	41	5.75
J371	Perform manual mode operations of DEUs	6.60	60	77	3.64
F187	Perform emergency shutdowns of LFs	6.60	45	63	4.39
F186	Perform emergency electrical isolations	6.57	40	52	4.23
L543	Troubleshoot brine chiller control panels	6.57	40	72	6.21
L550	Troubleshoot LF emergency air-conditioning subsystems and controls	6.53	40	66	5.83
L472	Adjust ECS flow alarms	6.50	45	73	5.74
L540	Service refrigerant subsystems	6.47	40	67	5.26
J402	Perform test mode operations of DEUs	6.43	55	76	3.84
L542	troubleshoot alarm control panels or controls	6.43	30	67	5.97
L555	Troubleshoot refrigerant subsystems	6.40	40	60	6.14
J432	Troubleshoot ASUs	6.40	55	52	6.70
F188	Perform EWO LF evacuations	6.40	30	53	4.17
J443	Troubleshoot DEU safety and alarm devices	6.37	40	76	5.50
L468	Adjust brine chiller components	6.37	20	75	5.63

TE MEAN = 3.55; S.D. = 1.82 (HIGH = 6.80)
TD MEAN = 5.00; S.D. = 1.00

TABLE 17

TASKS WITH HIGHEST TASK DIFFICULTY RATINGS

TASKS		TSK DIFF	PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	2M053	2M073	TNG EMP
D104	Develop career development courses (CDCs)	7.96	0	0	1	1	.43
N664	Troubleshoot MT electrical systems	7.91	0	2	4	1	3.07
I355	Troubleshoot GCCU test benches	7.82	0	1	5	2	2.63
I347	Calibrate GCCU test benches	7.66	0	1	5	1	2.63
C69	Indorse civilian performance appraisals	7.63	0	0	1	1	.17
G307	Troubleshoot G and C liquid cooling test and repair benches	7.61	0	3	10	2	3.50
G308	Troubleshoot G and C liquid cooling test sets	7.46	0	3	11	2	3.23
I356	Troubleshoot GCCU test sets	7.46	0	2	6	2	2.63
N663	Troubleshoot MT ECS	7.38	0	2	5	1	3.07
N662	Troubleshoot MT APU	7.38	0	2	4	1	3.03
C87	Write civilian performance appraisals	7.27	0	1	1	2	.07
C90	Write staff studies, surveys, or special reports, other than training reports	7.25	0	1	3	26	.77
D108	Draft or write lesson plans	7.15	0	0	19	15	1.47
I345	Adjust GCCU test benches	7.13	0	1	4	1	2.57
I346	Adjust GCCU test set components	7.13	0	1	5	1	2.57
G306	Troubleshoot G and C electronic control amplifiers	7.11	0	2	4	0	3.07
A8	Draft budget requirements	7.09	0	1	4	27	.30
D100	Construct or develop training materials or aids	7.07	0	1	19	20	1.50
L489	Perform conditioned air flow balancings	7.07	45	73	46	10	5.57
C91	Write unit inspection reports	7.03	0	0	2	10	.47
N670	Troubleshoot PT ECS	6.94	0	4	12	4	3.93

TD MEAN = 5.00; S.D. = 1.00
TE MEAN = 3.55; S.D. = 1.82 (HIGH = 6.80)

Specialty Training Standard (STS) Analysis

A comprehensive review of the AFSC 2M0X3 STS, implemented June 1994, as made by comparing survey data to STS elements. To assist specifically in the examination of the STS, technical school personnel from the 532nd Training Squadron, located at Vandenberg AFB CA, matched JI tasks to appropriate sections and subsections of the STS. A complete listing, displaying percent members performing tasks, TE and TD ratings for each task, along with STS matching, has been forwarded to the technical school for use in further review of training documents. STS elements with performance objectives were reviewed in terms of TE, TD, and percent members performing information, using the guidance provided in AFI 36-2623 and AETCR 52-22. Typically, tasks performed by 20 percent or more personnel in appropriate experience or skill-level groups, such as first-enlistment (1-48 months TAFMS), and 5- and 7-skill level groups, should be considered for inclusion in the STS. Likewise, tasks with less than 20 percent performing in all of these groups should be considered for deletion from the STS.

Review of the draft STS showed that only two items were unsupported by survey data. These unsupported items, along with accompanying JI tasks and survey data, are listed in Table 18. The STS items that were unsupported did not pertain to any one area. This indicates that the survey data supported the STS very well. Training personnel and SMEs should review the unsupported STS items listed in Table 18, as well as accompanying training documents, to determine if inclusion in future revisions is warranted.

Tasks not matched to any element of the STS are listed at the end of the computer listing located in associated training documents. These were reviewed to determine if any tasks concentrate around particular functions or jobs. Many of the unreferenced tasks are managerial or supervisory in nature and not normally matched to an STS. There were numerous technical tasks, performed by 20 percent or more criterion group members that were not referenced to the STS. These tasks are listed in Table 19 and appeared to concentrate in duty J, MAINTAINING LAUNCH FACILITY (LF) AND MISSILE ALERT FACILITY (MAF) POWER GENERATION AND DISTRIBUTION SYSTEMS. Consideration should be given to add tasks of this nature to future revisions of the STS.

Plan of Instruction (POI) Analysis

Technical school SMEs matched JI tasks to POI V3ABR2M033A-002, dated 10 April 1995, training objectives. Objectives were evaluated in a method similar to the STS analysis, as percent members performing data for first-job (1-24 months TAFMS) and first-enlistment (1-48 months TAFMS) personnel, TE, and TD ratings were examined.

TABLE 18

STS ITEMS NOT SUPPORTED BY SURVEY DATA

STS ITEMS/TASKS		TNG EMP	1ST JOB	1ST ENL	PERCENT MEMBERS PERFORMING 2M053	2M073	TSK DIFF
19b.	**Prepare chromate dioxin solution**						
G295	Prepare sodium chromate solutions	3.37	0	3	12	1	6.08
19c.	**Emergency storage battery reconditioning**						
F228	Recondition or initially charge emergency batteries	4.13	0	8	14	1	4.33

TD MEAN = 5.00; S.D. = 1.00
TE MEAN = 3.55; S.D. = 1.82 (HIGH = 5.37)

TABLE 19

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE CRITERION GROUP PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING					
		TNG EMP	1ST JOB	1ST ENL	2M053	2M073	TSK DIFF
F270	Troubleshoot monitor or alarm panels	5.47	20	50	30	11	6.33
J357	Adjust automatic switching unit (ASU) components	5.50	20	51	27	10	6.20
J358	Adjust diesel engine unit (DEU) air intake and exhaust system components, such as valve lash adjustments	6.13	60	77	46	12	5.61
J360	Adjust DEU cranking and alarm panel components	5.70	35	70	41	12	5.06
J361	Adjust DEU exciter components	5.47	25	42	26	10	6.18
J363	Adjust DEU generator control panel components	5.97	55	73	43	12	5.31
J367	Adjust DEU starting and stopping device components	5.90	55	71	42	12	5.12
J369	Adjust power control center (PCC) components	5.40	45	34	20	9	4.74
J370	Perform emergency war order (EWO) effectiveness operations	6.03	40	43	26	14	3.43
J374	Perform operational checkouts of DEU battery chargers	5.70	60	79	47	14	3.84

TD MEAN = 5.00; S.D. = 1.00
TE MEAN = 3.55; S.D. = 1.82 (HIGH = 5.37)

POI blocks, units of instruction, and criterion objectives were compared against guidance provided by AETCR 52-22 (30 percent or more criterion first-enlistment group performing trained tasks). In accordance with this guidance, tasks trained in the course not meeting these criteria should be considered for elimination from formal course training if not justified on some other acceptable basis.

POI analysis revealed very few unsupported objectives similar to what was exhibited in the STS analysis. The three unsupported objectives are listed in Table 20. These unsupported objectives were concentrated in the TO area.

Only 1 technical task, performed by over 30 percent of first-enlistment personnel, was not matched to the POI. This task involves troubleshooting air-conditioning subsystems, other than emergency systems. Training personnel and SMEs should review this unreferenced task to determine if this area should be incorporated into the formal course.

JOB SATISFACTION ANALYSIS

An examination of job satisfaction indicators can be very useful for career ladder managers as they attempt to determine possible factors affecting job performance of career ladder airmen. Job satisfaction data can be expanded to provide indications of general attitudes within specific DAFSC groups.

With this in mind, job satisfaction responses for AFSC 2M0X3 personnel were analyzed and provide the following comparisons: (1) among TAFMS groups of the AFSC 2M0X3 career ladder and a comparative sample of logistics personnel surveyed in 1994, and (2) between current and previous AFSC 2M0X3 respondents.

Table 21 shows the comparison of TAFMS group data of AFSC 2M0X3 respondents to a comparative sample of other logistics career ladders surveyed the previous year. These data provide a relative measure of how AFSC 2M0X3 personnel job satisfaction responses compare with similar AF specialties. Generally, Missile and Space Facilities Maintenance personnel appear to be slightly more satisfied with their jobs than members of a comparative sample, except for the first-enlistment personnel which appear to show a bit more dissatisfaction than their counterparts in the comparative sample. The Missile and Space Facilities Maintenance respondents from all TAFMS groups feel their talents and training are being used more than their counterparts in the comparative sample, but the two less experienced TAFMS groups appear less likely to reenlist. The members of both 1-48 months TAFMS groups are less likely to reenlist than members of any other TAFMS group. Overall, members of the current sample seem to be relatively satisfied with their jobs as do the members of the comparative sample.

TABLE 20

POI ITEMS NOT SUPPORTED BY SURVEY DATA

POI OBJECTIVES/TASK		TNG EMP	PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	TSK DIFF
VI 2b.	**Given a CEM page containing an error, complete an ACC Form 272 CEM/ICBM RPIE Improvement Report with no more than two deviations**				
E147	Initiate TO improvement reports	4.80	10	13	4.61
IX 4b.	**Using technical order, locate specific weapon system information by selecting the correct responses with a minimum of 70 percent accuracy**				
E 165	Research TOs	3.77	15	8	5.40
IX 4c.	**Given a technical order extract containing an error, complete AFTO Form 22, Technical Order System Publication Improvement Report and Reply, with no more than two errors**				
E147	Initiate TO improvement reports	4.80	10	13	4.61

TD MEAN = 5.00; S.D. = 1.00
TE MEAN = 3.55; S.D. = 1.82 (HIGH = 5.37)

TABLE 21

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 2M0X3
TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE
(PERCENT MEMBERS RESPONDING)

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	AFSC 2M0X3 (N=128)	COMP SAMPLE (N=3,099)	AFSC 2M0X3 (N=89)	COMP SAMPLE (N=2,781)	AFSC 2M0X3 (N=151)	COMP SAMPLE (N=5,702)
EXPRESSED JOB INTEREST:						
INTERESTING	66	63	74	61	75	69
SO-SO	17	23	18	26	18	22
DULL	17	13	8	12	7	9
PERCEIVED USE OF TALENTS:						
FAIRLY WELL TO PERFECT	73	69	87	71	84	79
NONE TO VERY LITTLE	27	31	13	29	16	21
PERCEIVED USE OF TRAINING:						
FAIRLY WELL TO PERFECT	89	87	85	84	80	80
NONE TO VERY LITTLE	11	11	15	14	20	18
SENSE OF ACCOMPLISHMENT FROM JOB:						
SATISFIED	55	68	72	68	77	73
NEUTRAL	19	17	10	15	8	11
DISSATISFIED	26	15	18	16	15	15
REENLISTMENT INTENTIONS:						
YES OR PROBABLY YES	52	65	67	80	81	76
NO OR PROBABLY NO	48	34	33	19	5	6
WILL RETIRE	0	0	0	0	15	18

NOTE: Columns may not add to 100 percent due to rounding or nonresponse
Comparative data are from Logistics AFSCs surveyed in 1994: 2A5X2, 2A6X4, 2A7X2, 2A7X4, 2E3X1, 2F0X1, and 2W1X1

An indication of changes in job satisfaction perceptions within the career ladder over time is provided in Table 22, which compares TAFMS group data for current survey respondents to that of previous survey respondents. The current AFSC 2M0X3 respondents seem about as satisfied with their jobs as those respondents surveyed in 1989, except for the 1-48 months TAFMS group. The current survey 1-48 months TAFMS group members feel their talents and training are slightly less utilized, but appear to be more likely to reenlist as compared to their counterparts in the previous study.

Finally, job satisfaction data for identified jobs are provided in Table 23. Generally, job satisfaction data are high for personnel across most identified jobs. Only the Job Control and Supply IJ members appear to be split on most issues.

Summary

Overall, AFSC 2M0X3 members appear to be as satisfied with their jobs as members of a comparative sample of logistics career ladder personnel, except for the first-enlistment members. Furthermore, members of the current sample appear as satisfied with their jobs as previous AFSC 2M0X3 (formerly AFSC 411X2A) personnel surveyed in 1989, again with the exception of those in their first-enlistment. Job satisfaction data of specific career ladder jobs' members shows most job members are satisfied with their work, feel their talents are being properly utilized, and find their work to be interesting.

IMPLICATIONS

This survey was conducted primarily to provide training personnel with current information on the Missile and Space Facilities Maintenance specialty for use in reviewing current training programs and training documents. Results indicate that the jobs have changed little since the last survey in 1989, and members follow a typical career progression pattern. The present classification structure, as described in AFM 36-2108 *Specialty Descriptions*, accurately portrays the jobs in this study.

Analysis of career ladder documents indicates that the STS is supported very well by survey data. The POI is also in tune with survey data, however, both documents should still be reviewed by career field functional managers and technical training SMEs.

No serious job satisfaction problems appear to exist in this specialty. Overall, AFSC 2M0X3 members are as satisfied with their jobs as members of a comparative sample of logistics career ladder personnel. Furthermore, current personnel are generally as positive about their jobs as previous AFSC 2M0X3 (formerly AFSC 411X2A) personnel surveyed in 1989. This may indicate that there has been a continuous trend of satisfaction in this career ladder over the years.

TABLE 22

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 2M0X3
TAFMS GROUPS IN CURRENT STUDY TO PREVIOUS STUDY
(PERCENT MEMBERS RESPONDING)

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	AFSC 2M0X3 (N=128)	1989 AFSC 411X2A (N=303)	AFSC 2M0X3 (N=89)	1989 AFSC 411X2A (N=127)	AFSC 2M0X3 (N=151)	1989 AFSC 411X2A (N=210)
EXPRESSED JOB INTEREST:						
INTERESTING	66	67	74	74	75	78
SO-SO	17	23	18	17	18	14
DULL	17	9	8	8	7	7
PERCEIVED USE OF TALENTS:						
FAIRLY WELL TO PERFECT	73	79	87	83	84	85
NONE TO VERY LITTLE	27	20	13	17	16	14
PERCEIVED USE OF TRAINING:						
FAIRLY WELL TO PERFECT	89	92	85	83	80	75
NONE TO VERY LITTLE	11	8	15	17	20	24
SENSE OF ACCOMPLISHMENT FROM JOB:						
SATISFIED	55	73	72	69	77	67
NEUTRAL	19	16	10	11	8	14
DISSATISFIED	26	11	18	20	15	18
REENLISTMENT INTENTIONS:						
YES OR PROBABLY YES	52	47	67	68	81	82
NO OR PROBABLY NO	48	52	33	32	4	9
WILL RETIRE	0	0	0	0	15	8

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 23

JOB SATISFACTION INDICATORS FOR AFSC 2M0X3 JOBS
(PERCENT MEMBERS RESPONDING)

	FMT & PMT CLUSTER (N=177)	PREL TECHNICIAN IJ (N=34)	SUPPLY IJ (N=5)	JOB CONTROL IJ (N=6)
EXPRESSED JOB INTEREST:				
INTERESTING	70	82	60	50
SO-SO	16	12	40	33
DULL	14	6	0	17
PERCEIVED USE OF TALENTS:				
FAIRLY WELL TO PERFECT	82	82	88	60
NONE TO VERY LITTLE	18	18	12	40
PERCEIVED USE OF TRAINING:				
FAIRLY WELL TO PERFECT	93	88	60	50
NONE TO VERY LITTLE	6	12	40	50
SENSE OF ACCOMPLISHMENT FROM JOB:				
SATISFIED	69	74	40	50
NEUTRAL	13	9	60	0
DISSATISFIED	18	18	0	50
REENLISTMENT INTENTIONS:				
YES OR PROBABLY YES	65	59	40	50
NO OR PROBABLY NO	33	41	60	50
WILL RETIRE	2	0	0	0

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 23 (CONTINUED)

JOB SATISFACTION INDICATORS FOR AFSC 2M0X3 JOBS
(PERCENT MEMBERS RESPONDING)

	SUPERVISORY CLUSTER (N=58)	QA IJ (N=17)	TRAINING IJ (N=5)
EXPRESSED JOB INTEREST:			
INTERESTING	84	76	80
SO-SO	12	24	20
DULL	3	0	0
PERCEIVED USE OF TALENTS:			
FAIRLY WELL TO PERFECT	84	94	80
NONE TO VERY LITTLE	16	6	20
PERCEIVED USE OF TRAINING:			
FAIRLY WELL TO PERFECT	76	94	60
NONE TO VERY LITTLE	24	6	40
SENSE OF ACCOMPLISHMENT FROM JOB:			
SATISFIED	76	71	60
NEUTRAL	12	12	20
DISSATISFIED	12	18	20
REENLISTMENT INTENTIONS:			
YES OR PROBABLY YES	71	94	100
NO OR PROBABLY NO	7	0	0
WILL RETIRE	22	6	0

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

The findings of this OSR come directly from survey data collected from AFSC 2M0X3 personnel. These data are readily available to training and utilization personnel, functional managers, and other interested parties. Much of the data are compiled into extracts which are excellent tools in the decision making process. These data extracts should be used when training or utilization decisions are made.

APPENDIX A

SELECTED REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS

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TABLE A1

FACILITY AND PERIODIC MAINTENANCE TEAM CLUSTER

TASKS		PERCENT MEMBERS PERFORMING
J401	Perform prestart checks of DEUs	97
J431	Service DEU lube oil systems	96
L475	Adjust ECS thermostats	95
L473	Adjust ECS pneumatic electrical switches	95
J374	Perform operational checkouts of DEU battery chargers	95
J371	Perform manual mode operations of DEUs	94
J402	Perform test mode operations of DEUs	94
L468	Adjust brine chiller components	93
J429	Service DEU cooling systems	93
J365	Adjust DEU lube oil system components	93
J376	Perform operational checkouts of DEU fuel oil systems	93
J379	Perform operational checkouts of DEU safety and alarm devices	93
J366	Adjust DEU safety and alarm device components	93
J426	Remove or install power generation and distribution system minor hardware, such as gaskets or bolts	92
M571	Raise or lower equipment by hand	90
L467	Adjust air-conditioning subsystem components, other than emergency systems	90
M567	Perform minor repairs, such as splicing wires, soldering, or tightening parts	86
M566	Perform LF entry and exit procedures	82
M569	Perform site general housekeeping functions	78

TABLE A2

PREL TECHNICIAN IJ

TASKS		PERCENT MEMBERS PERFORMING
N669	Troubleshoot PT APU	100
N607	Perform operational checkouts of PT security systems	100
N605	Perform operational checkouts of PT electrical systems	100
N670	Troubleshoot PT ECS	100
N671	Troubleshoot PT electrical systems	100
N623	Perform periodic inspections of PT APU	100
N603	Perform operational checkouts of PT APU	100
N625	Perform periodic inspections of PTU electrical systems	100
N604	Perform operational checkouts of PT ECS	100
N620	Perform periodic inspections of PMT van ECS	100
N624	Perform periodic inspections of PT ECS	100
N627	Perform periodic inspections of PT security systems	100
N673	Troubleshoot PT security systems	100
N619	Perform periodic inspections of PMT van APU	100
N672	Troubleshoot PT hoists	97
N606	Perform operational checkouts of PT hoists	97
N626	Perform periodic inspections of PT hoists	97
N580	Adjust payload transporter (PT) APU components	97
N621	Perform periodic inspections of PMT van electrical systems	97

TABLE A3

SUPPLY IJ

TASKS		PERCENT MEMBERS PERFORMING
E149	Inspect equipment, tools, or supplies, other than CTKs	100
E151	Inventory equipment, tools, or supplies, other than CTKs	80
E153	Issue or log turn-ins of equipment, tools, or supplies, other than CTKs	80
E169	Store equipment, tools, or supplies	60
E171	Update equipment status reports, such as files, logs, or boards	60
E156	Maintain bench stock supply level	60
E150	Inventory CTKs	40
E148	Inspect consolidated tool kits (CTKs)	40
B30	Dispatch maintenance teams	40
E162	Perform operator maintenance on vehicles	20
C85	Review supply levels	20
E152	Issue or log turn-ins of CTKs	20
A5	Determine or establish work priorities	20

TABLE A4

JOB CONTROL IJ

TASKS		PERCENT MEMBERS PERFORMING
E172	Update maintenance data into Expanded Minuteman Data Analysis System (EMDAS)	100
B30	Dispatch maintenance teams	83
A19	Schedule maintenance or maintenance inspections	67
E143	Extract maintenance data from EMDAS	67
B29	Direct utilization or maintenance of equipment, supplies, or workspace	50
A5	Determine or establish work priorities	50
E132	Coordinate maintenance of equipment with appropriate agencies	33
A3	Determine or establish logistic requirements, such as personnel, equipment, space, tools, or supplies	33
A14	Plan or prepare briefings	33
E135	Destroy classified materials	33
E130	Compile information for records or reports	17
E171	Update equipment status reports, such as files, logs, or boards	17
E168	Review WRF listings	17
E145	Initiate deficiency, service, or status reports	17
A4	Determine or establish publications requirements	17
E167	Review deficiency, service, or status reports	17
C88	Write EPRs	17

TABLE A5

SUPERVISORY CLUSTER

TASKS		PERCENT MEMBERS PERFORMING
A5	Determine or establish work priorities	86
B26	Counsel personnel on personal or military-related matters	86
C88	Write EPRs	79
A17	Plan work assignments	76
A3	Determine or establish logistic requirements, such as personnel, equipment, space, tools, or supplies	76
B40	Interpret policies, directives, or procedures for subordinates	74
A10	Establish performance standards for subordinates	72
A20	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	71
A14	Plan or prepare briefings	69
A18	Review policy changes	67
C75	Inspect work areas	62
A19	Schedule maintenance or maintenance inspections	62
A11	Establish work methods, production controls, or inspection procedures	62
A7	Develop work procedures	59
C74	Inspect safety equipment	55
C67	Evaluate work schedules	53
C48	Analyze workload requirements	50
B30	Dispatch maintenance teams	48
E168	Review WRF listings	48

TABLE A6

QUALITY ASSURANCE IJ

TASKS		PERCENT MEMBERS PERFORMING
C74	Inspect safety equipment	94
C64	Evaluate technical order (TO) changes	94
C53	Evaluate maintenance or use of maintenance equipment, tools, supplies, or workspace	88
C75	Inspect work areas	88
C73	Initiate TO changes	88
C58	Evaluate personnel for compliance with performance standards	82
C54	Evaluate master change logs (MCLs)	82
C71	Initiate CEM changes	82
C89	Write QA reports	76
C82	Review inspection reports	76
E149	Inspect equipment, tools, or supplies, other than CTKs	76
C60	Evaluate QA procedures	76
C78	Perform acceptance inspections	76
B33	Implement quality assurance (QA) programs	71
C80	Perform completed maintenance inspections	71
B40	Interpret policies, directives, or procedures for subordinates	71
C50	Evaluate civil engineering manual (CEM) changes	71
C81	Perform technical spot inspections	59
C79	Perform activity inspections	59

TABLE A7

TRAINING IJ

TASKS		PERCENT MEMBERS PERFORMING
D116	Maintain training records, charts, graphs, or files	100
D113	Evaluate progress of trainees	100
D101	Counsel trainees on training progress	100
D119	Prepare training schedules	100
D100	Construct or develop training materials or aids	100
D107	Direct or implement training programs	100
D93	Administer or score training tests	100
D108	Draft or write lesson plans	80
D120	Procure training aids, space, or equipment	80
D118	Plan or schedule training, such as OJT, qualification training, or ancillary training	80
D111	Evaluate effectiveness of training, such as career knowledge upgrade, or qualification training	80
D114	Evaluate training methods or techniques	80
D112	Evaluate personnel for training needs	80
D126	Write or revise training materials	60
D115	Insert faults into trainers	60
D94	Assign on-the-job training (OJT) trainers	60
D98	Conduct team training	60
D95	Conduct OJT	60
D99	Conduct training conferences or briefings	60